NOV/DEC 1988 ISSUE # 21

VZ 200/300

HUNTER VALLEY VZ JOURNAL

V Z WORD PROCESSOR PATCH

VERSION 3.3

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PRODUCED BI-MONTHLY BY H.V.VZ.U.G.

THIS PUBLICATION WAS PREPARED USING DAVE MITCHELL'S PATCH3.3 TOGETHER WITH E & F W.PROCESSOR. HI & LO-RES SCREEN DUMPS AND LISTINGS WERE DONE USING LARRY TAYLOR'S PRINTER PATCH V1.4 AVAILABLE FROM VSOFTWAREZ. PATCH 3.3 IS AVAILABLE FROM HUNTER VALLEY VZ USERS' GROUP.

USERS OF STEVE OLNEY'S EXTENDED BASIC SHOULD FIND BRIANS ON GOTO UTILITY VERY HANDY. TO MAKE IT EASY IT'S PRESENTED IN BASIC, M/CODE AND ASSEMBLY. TAKE YOUR CHOICE.

DOES'NT MATTER WHO YOU ARE, WE ALL OCCASIONALLY OVERLOOK THE OBVIOUS AND I'M NO EXEPTION.

IF YOU WOULD LIKE TO SHIFT YOUR DRIVE FURTHER FROM THE TV THEN AN EXTENSION CABLE MIGHT BE THE ANSWER.

THE PRINT MENU DEFAULTS CAN BE CHANGED BY YOU AND YOU DON'T HAVE TO KNOW ANYTHING ABOUT M/CODE EITHER, UNFORTUNATELY FOR DISK DRIVE USERS ONLY.

THE DISK CONVERSION FOR MAILING LIST PROVED TO BE VERY POPULAR. SOME MEMBERS FOUND IT DIFFICULT TO INCORPORATE DISK ROUTINES IN THEIR OWN PROGRAMS. THE ROUTINES ARE PRESENTED ON THEIR OWN TO HELP THEM OUT.

THIS PROGRAM SHOULD BE OF INTEREST (% PUN INTENDED) TO MOST HOME OWNERS/PURCHASERS. THE PROGRAM IS PRETTY BASIC AND COULD EASYLY BE ALTERED TO SUIT YOUR NEEDS.

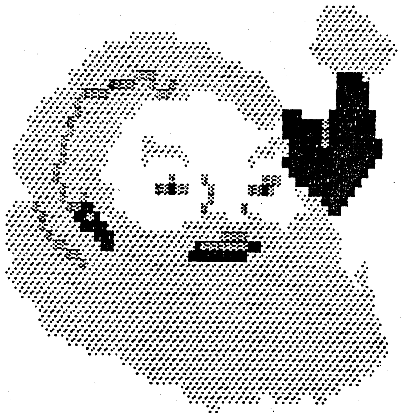
I HAD MANY DELAYS WITH PART TWO OF THIS PROJECT AND SOME WERE ACCIDENTAL. AS MENTIONED IN ARTICLE I COULD'NT AFFORD TO GET A PCB DESIGNED FOR IT.

MY MISFORTUNES WITH H.C/DISK HAD SOME BENIFICIAL RESULTS WITH SOURCE OF PROBLEM BEING RECTIFIED.

DAVE GIVES YOU A CHOICE OF FOUR. AS MY PRINTER/PLOTTER IS OUT OF ACTION I COULD'NT PRESENT YOU WITH SOME SAMPLES. IT SHOULD BE POSSIBLE TO COMBINE ALL FOUR PROGRAMS INTO ONE AND SELECT DESIRED LABEL FROM A MENU.

AS MENTIONED IN LAST ISSUE THE NEW E & F W.P. PATCH IS NOW READY FOR SALE. IT'S AN IMPROVED VERSION WITH ADDED FUNCTIONS AND COMMANDS. PRINTER CONTROL CODES CAN BE IMBEDDED IN TEXT BUT THEY REQUIRE YOU TO BE FAMILIAR WITH YOUR PRINTER CONTROL CODES.

DAVID MITCHELL, AUTHOR OF PATCH3.3 HAS SOME OTHER EXELLENT UTILITIES FOR SALE. I'VE BEEN USING THEM CONSTANTLY AND I WOULD'NT BE WITHOUT THEM.



SEASONS GREETINGS

THE HUNTER VALLEY VZ USERS' GROUP WISHES ALL OUR MEMBERS AND THEIR FAMILIES A VERY MERRY CHRISTMAS AND A HAPPY NEW YEAR.

ANOTHER YEAR IS NEARLY OVER WITH BAD NEWS AS FAR AS THE VZ IS CONCERNED WHICH HAS BEEN DISCONTINUED. IT'S NOW UP TO VZ USER GROUPS AND PUBLICATIONS TO KEEP THE FLAG FLYING.

I TAKE THIS OPPORTUNITY TO THANK ALL THE MEMBERS WHO CONTRIBUTED TO THE JOURNAL AS WE COULD'NT HAVE DONE IT WITHOUT YOU AND WE LOOK TO YOUR CONTINUED SUPPORT IN THE COMING YEAR.

NEXT MEETING OF HUNTER VALLEY VZ USERS' GROUP
FEBRUARY 3, 1989 - NO MEETING JANUARY 1989

VZ USER - MARK HARWOOD, EDITOR OF VZ USER HAS DECIDED TO CALL IT QUITS DUE TO FULL TIME UNI COMMITMENTS.

ABOUT 3 MONTHS AGO I WAS INVOLVED IN A CAR ACCIDENT WHERE MY VECHICLE WAS WRITTEN OFF. AS A CONSEQUENCE I FOUND IT EXTREMELY DIFFICULT TO GET LAST ISSUE OUT AND ANSWER SOME OF THE LETTERS SENT. PLEASE BEAR WITH ME AS I HAVE'NT FORGOTTEN YOU. THE JOURNAL WAS ALSO POSTED LATE AS A RESULT.

THANKS - I WOULD LIKE TO EXPRESS MY SINCERE THANKS FOR MANY MEMBERS WISHES FOR MY SPEEDY RECOVERY, MUCH APPRECIATED.

DISCLAIMER - EVERY EFFORT IS MADE TO ENSURE THE ACCURACY OF INFORMATION CONTAINED WITHIN BE IT GENERAL, TECHNICAL, PROGRAMMING, ETC. NO RESPONSIBILITY CAN BE ACCEPTED BY H.V.VZ.U.G. AS A RESULT OF APPLYING SUCH INFORMATION.

ON GOTO BY BRIAN GREEVE . . . .

THERE HAVE BEEN SEVERAL EXTENDED BASIC PROGAMS WRITTEN FOR THE VZ'. I PURCHASED A COPY OF STEVE OLNEY'S VERSION SHORTLY AFTER IT WAS AVAILABLE. MOST OF THE ADDITIONAL FUNCTIONS PROVIDED BY THE PROGRAM WOULD WORK WHEN LOADED WITHOUT THE "EXBASV2.3" IN RESIDENCE.

A CONVERSION PROGRAM WAS PROVIDED FOR THE TWO FUNCTIONS WHICH WOULD NOT. THE USE OF THE CONVERSION PROGRAM WAS PRETTY SIMPLE BUT IT WAS A BIT SLOW AND IT WOULD STOP WHEN IT REACHED MEMORY ADDRESS 32767.

SINCE I HAVE BEGUN WRITING PROGRAMS IN ASSEMBLY LANGUAGE I DECIDED TO REPLICATE THE PROGRAM IN MACHINE CODE. IT NOW WORKS FASTER AND WILL HANDLE THE LARGEST PROGRAM.

THIS PROGRAM OPERATES IN THE HI-RES MEMORY AREA WHICH ACCOUNTS FOR THE SCREEN ACTIVITY WHILE WORKING, IT ALSO ALLOWS IT TO BE USED WITHOUT NEEDING ANY OF THE BASIC PROGAMMING AREA.

THE USE OF THIS PROGRAM IS SIMILAR TO THE STEVE OLNEY CONVERSION PROGRAM. AFTER THE BASIC PROGRAM IS COMPLETE, BRUN/CLOAD"ONGOTO". THE PROGRAM WILL LOAD AND PROCESS THE BASIC PROGRAM. WHEN CONVERSION IS COMPLETE THE BASIC PROGRAM IS SAVED BY THE PROGRAMMER.

THE BASIC LOADER IS A COPY OF THE ONE SUBMITTED BY DAVE MITCHELL IN ISSUE 8/9 (RESTORE). PEOPLE WHO HAVE A COPY OF THAT PROGRAM WILL ONLY NEED TO CHANGE THE ALTERED FIGURES.

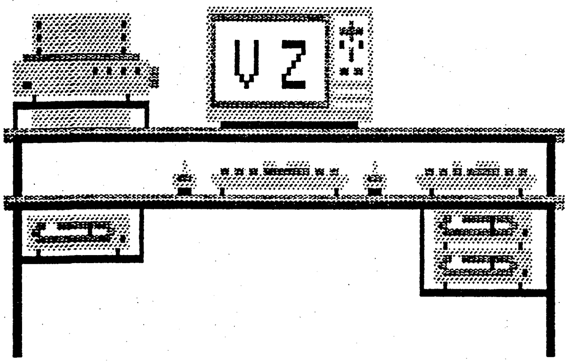
```
10 FOR I = 29184 TO 29300
20 READ A:POKE I,A: NEXT
30 DATA205,201,1,33,72,112,34,32,120,33,80,114,205,167,40,33
35 DATA233,122,34,164,120,229,35,35,35,35,126,254,170,40,39,254
40 DATA163,40,40,254,0,35,32,242,182,32,235,35,182,32,232,225
45 DATA205,248,26,35,34,249,120,33,162,113,34,32,120,33,96,114
50 DATA205,167,40,195,25,26,62,161,119,24,206,62,158,119,24
60 DATA201,35,35,35,32,79,78,32,71,79,84,79,32,35,35,35,0,70
65 DATA73,78,73,83,72,69,68,32,67,79,78,86,69,82,83,73,79,78
70 DATA0,0
80 CLS:PRINT"SAVE TO DISK OR TAPE   (D/T)"
90 A1$=INKEY$:A$=INKEY$:IFA$<>"D"ANDA$<>"T"THEN90
100 SOUND30,1:IFA$="T"THEN180
110 IF PEEK( 16384 ) = 170,140
120 PRINT"NO DISK DRIVE TO USE"
130 GOTO 180
140 PRINT"INSERT DISK,CLOSE DOOR & PRESS  RETURN"
150 IFINKEY$<>CHR$(13),150
155 SOUND30,1
160 BSAVE"ONGOTO",7200,7273
170 END
180 FOR I = 29440 TO 29485
190 READ A: POKEI,A: NEXT
200 PRINT"INSERT CASSETTE,PRESS PLAY &    RECORD THEN RETURN"
210 IF INKEY$ <> CHR$(13),210
220 SOUND30,1
230 POKE30862,0:POKE30863,115:X=USR(0)
240 END
250 DATA33,0,114,34,164,120,33,116,114,34,249,120
260 DATA33,38,115,14,241,243,205,172,52,251,33,233,122
270 DATA34,164,120,205,248,26,35,34,249,120
280 DATA195,25,26,34,79,78,71,79,84,79,34
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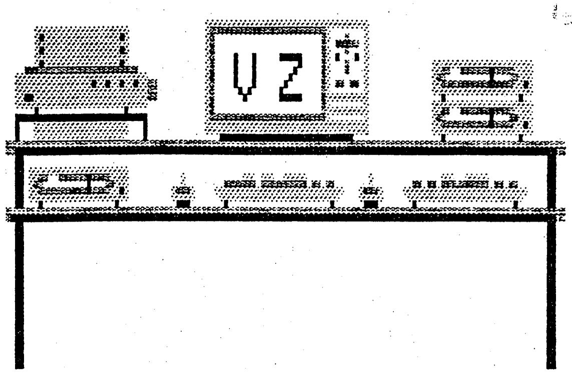
```
                                ;
                                ;   ####  ON GOTO   ####
                                ;TO CONVERT ON GOTO CODE
                                ;FOR USE IN UN MODIFIED VZ
7200 CD C9 01                         CALL 01C9H
7203 21 48 70                         LD   HL,7048H
7206 22 20 78                         LD   (7820H),HL
7209 21 50 72                         LD   HL,MES1
720C CD A7 28                         CALL 28A7H
720F 21 E9 7A                         LD   HL,7AE9H
7212 22 A4 78                         LD   (78A4H),HL
7215 E5                               PUSH HL
7216 23                          INC4 INC  HL
7217 23                          INC3 INC  HL
7218 23                               INC  HL
7219 23                          INC  INC  HL
721A 7E                          MP   LD   A,(HL)
721B FE AA                            CP   170
721D 28 27                            JR   Z,II
721F FE A3                            CP   163
7221 28 28                            JR   Z,JJ
7223 FE 00                            CP   0
7225 23                               INC  HL
7226 20 F2                            JR   NZ,MP
7228 B6                               OR   (HL)
7229 20 EB                            JR   NZ,INC4
722B 23                               INC  HL
722C B6                               OR   (HL)
722D 20 E8                            JR   NZ,INC3
722F E1                               POP  HL
7230 CD F8 1A                         CALL 1AF8H
7233 23                               INC  HL
7234 22 F9 78                         LD   (78F9H),HL
7237 21 A2 71                         LD   HL,71A2H
723A 22 20 78                         LD   (7820H),HL
723D 21 60 72                         LD   HL,MES2
7240 CD A7 28                         CALL 28A7H
7243 C3 19 1A                         JP   1A19H
7246 3E A1                       II   LD   A,161
7248 77                               LD   (HL),A
7249 18 CE                            JR   INC
724B 3E 9E                       JJ   LD   A,158
724D 77                               LD   (HL),A
724E 18 C9                            JR   INC
                                 MES1 EQU  $
7250 -  TEXT   -                 *### ON GOTO ###*
725F 00                               NOP
                                 MES2 EQU  $
7260 -  TEXT   -                 *FINISHED CONVERSION*
7273 00                               NOP
BYTES FREE :- 22404 ERRORS : 00000
```

WANTED TO BUY . . . .

Wanted a VZ300 in good working order. Will pay approximately up to $50.00 for a good unit.

Contact REX GLADDING AT 28 BLACKBUTT DRIVE
GREENWOOD W.A. 6024 OR PHONE (09) 447 7093





DISK DRIVE PROBLEMS CAN TAKE MANY FORMS FROM A BAD BATCH OF DISKS TO ELECTRICAL INTERFERENCE JUST TO NAME A COUPLE. I'M SURE MANY DRIVE USERS HAVE COME ACROSS THE DREADED DISK I/O ERROR AND BEEN AT A LOSS ON WHAT TO DO. LIVING IN A SMALL HOUSE HAS IT'S DRAWBACKS LIKE HAVING TWO COMPUTER SYSTEMS ON THE ONE TABLE.

AS EDITOR I SEND AND RECEIVE QUITE A FEW DISKS AND USED TO HAVE LOTS OF PROBLEMS WITH DISK I/O ERROR ON MY SYSTEM. PERSONS SENDING ME DISKS ASSURED ME NO PROBLEMS AT THEIR END. I PRESUMED DIRTY HEAD AND USED A HEAD CLEANING DISK WITH DISASTROUS RESULTS. (SEE HEAD CLEANING DISK UPDATE ELSEWHERE IN THIS ISSUE).

CLEANING HEAD DID'NT SEEM TO MAKE ANY DIFFERENCE SO HAD TO LOOK FOR ANOTHER CAUSE AND IT WAS SO OBVIOUS THAT I COULD'NT SEE THE FOREST FOR THE TREES, I SIMPLY FORGOT ABOUT IT. THE DRIVES WERE SIMPLY TOO CLOSE TO THE TV, LESS THAN 5 INCHES AND THE MAGNETIC FIELD CREATED BY THE TRANSFORMER IN THE TV WAS AFFECTING PROPER DRIVE OPERATION.

THE SOLUTION WAS OBVIOUS, MOVE THE DRIVES AS FAR AS POSSIBLE FROM THE TV. SOLVING ABOVE PROBLEM CREATED ANOTHER BY REALISING LEADS ATTACHED BETWEEN DRIVE AND DISK CONTROLLER WERE TOO SHORT FOR THE JOB.

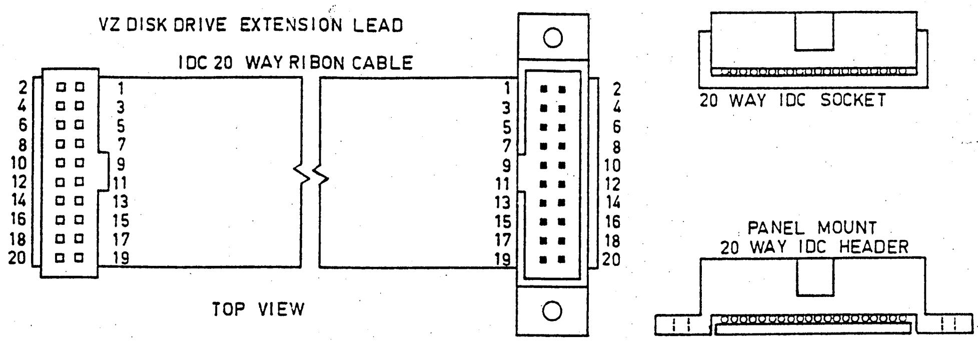
ANOTHER PROBLEM WAS LACK OF ROOM ON THE TABLE FOR MY DRIVES DUE TO THE KIDS COMMODORE C64 COMPUTER AND DRIVE SHARING THE TABLE, (THEY'LL HAVE TO GO, C64 TOO).

THE DRAWING ON THE RIGHT SHOWS THE DRIVES NEXT TO THE TV AND IT'S ONE PLACE DRIVES SHOULD BE KEPT AWAY FROM WHILE THE DRAWING ON THE LEFT DEPICTS MY PRESENT LAYOUT WHICH HAS CURED THE DISK I/O ERROR.

THE VZ DRIVES NO LONGER SIT BESIDES THE TV, BUT HAVE BEEN MOVED TO A SHELF BELOW THE TABLE AS HAS THE C64 DRIVE. EXTENSION RIBBON CABLE LEADS WERE CONSTRUCTED TO ALLOW DRIVES TO OPERATE ON A SHELF BELOW THE TABLE.

IF YOU HAVE PLENTY ROOM ON YOUR TABLE AND YOU HAVE NO PROBLEMS WITH YOUR DRIVE/S THEN YOU'RE LUCKY AND THE EXTENSION CABLE IS NOT FOR YOU. IF YOU DO GET DISK I/O ERRORS THEN TRY MOVING DRIVE/S AS FAR AWAY AS POSSIBLE FROM THE TV.

ALSO ONE SIDE OF THE TV USUALLY HAS A STRONGER MAGNETIC FIELD THAN THE OTHER DEPENDING IN WHICH SIDE THE TRANSFORMER IS MOUNTED. SOMETIMES IT'S SUFFICIENT TO MOVE DRIVE/S FROM ONE SIDE TO THE OTHER.



CONSTRUCTING RIBBON CABLE EXTENSION LEAD :-

PARTS LIST - 1 OFF 20 WAY IDC FLAT RIBBON SOCKET
1 OFF 20 WAY IDC FLAT RIBBON PANEL MOUNT HEADER
1 OFF 20 WAY IDC FLAT RIBBON CABLE - 16" (40CM)

ASSEMBLY IS FAIRLY SIMPLE, JUST FOLLOW THE DIAGRAM. INSERT THE RIBBON CABLE INTO THE SLOT AT BOTTOM OF HEADER/SOCKET MAKING SURE CABLE IS SQUARE AND PUT IT DOWN ON A HARD SURFACE LIKE A BREADBOARD. PLACE A SMALL PIECE OF WOOD ON TOP OF HEADER/SOCKET AND USING A SMALL HAMMER HIT THE WOOD TILL THE CLAMP HAS LOCKED THE CABLE IN PLACE.

REPEAT FOR OTHER END MAKING SURE THE HEADER/SOCKET ARE THE RIGHT WAY ROUND. DO NOT MAKE THE RIBBON CABLE LONGER THAN NECCESSARY TO AVOID INTRODUCING TOO MUCH CAPACITANCE WHICH CAN AFFECT DRIVE OPERATION.

I'VE BEEN USING EXTENSION CABLES WITH MY DRIVES FOR A WHILE NOW AND HAVE EXPERIENCED NO PROBLEMS SO FAR. REMEMBER, CHECK ALL YOUR WORK AS A MISTAKE CAN SPELL DISASTER.

NOTE - WHEN PURCHASING THE RIBBON CABLE MAKE SURE IT'S IDC (INSERTION DISPLACEMENT CONNECTOR) TYPE AS IT HAS THE CORRECT SPACING TO FIT IN THE METAL SLOTS FOR CLAMPING. IF YOU CAN'T GET 20 WAY RIBBON CABLE THEN THE NEXT ONE WIDER WILL DO AS IT'S SIMPLE TO REMOVE THE EXESS STRANDS.

ALSO YOU MAY HAVE TROUBLE GETTING THE PANEL MOUNT IDC HEADER AS IT'S A BIT HARD TO COME BY. DO NOT GET THE HEADER WHICH HAS PINS AT BOTTOM WHICH ARE DESIGNED FOR PRINTED CIRCUIT MOUNTING AND NOT SUITABLE FOR THIS APPLICATION.

THERE ARE TWO MORE WAYS TO ACHIEVE A LONGER LEAD. ONE IS TO REMOVE ENTIRE CABLE FROM DRIVE AND REPLACE WITH LONGER ONE. THE OTHER IS A BIT SIMPLER AND INVOLVES PUTTING AN IDC PANEL MOUNT HEADER AT REAR OF DRIVE AS PER DISK CONTROLLER. THAT WAY THE LEAD IS ENTIRELY REMOVABLE AND MAKES FOR EASIER TRANSPORTATION.

WHICHEVER WAY YOU CHOSE TO CONSTRUCT EXTENSION CABLE I MUST STRESS THE IMPORTANCE OF BEING CAREFULL AS YOU ARE DOING IT AT YOUR OWN RISK. THIS ARTICLE IS MERELY A GUIDE AND IF YOU HAVE ANY DOUBTS ON YOUR ABILITY THEN DON'T ATTEMPT CONSTRUCTION.

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PRINT TEXT
==========

SCREEN OR PRINTER (S/P)      ?P
RIGHT-JUSTIFY (Y/N)          ?Y
PAGE WIDTH (20-99)           ?31
LEFT MARGIN (0-80)           ?00
PAGE LENGTH (10-99)          ?62
INTER-PAGE LENGTH (0-9)      ?4
AUTO-NEXT-PAGE (Y/N)         ?Y
PAGE NUMBERING (Y/N)         ?N
FIRST PAGE NUMBER (1-99)     ?01
SUPRESS FINAL F-F (Y/N)      ?N
DOUBLE SPACING (Y/N)         ?N
NUMBER OF COPIES (1-9)       ?1
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PRINT TEXT
==========

SCREEN OR PRINTER (S/P)      ?S
RIGHT-JUSTIFY (Y/N)          ?Y
PAGE WIDTH (20-99)           ?75
LEFT MARGIN (0-80)           ?10
PAGE LENGTH (10-99)          ?62
INTER-PAGE LENGTH (0-9)      ?4
AUTO-NEXT-PAGE (Y/N)         ?Y
PAGE NUMBERING (Y/N)         ?N
FIRST PAGE NUMBER (1-99)     ?01
SUPRESS FINAL F-F (Y/N)      ?N
DOUBLE SPACING (Y/N)         ?N
NUMBER OF COPIES (1-9)       ?1
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-27610 80 P
-27609 89 Y
-27608 31
-27607  0
-27606 62 >
-27605  4
-27604 89 Y
-27603 78 N
-27602  1
-27601 78 N
-27600 78 N
-27599  1
```

```
-27610 83 S
-27609 89 Y
-27608 75 K
-27607 10
-27606 62 >
-27605  4
-27604 89 Y
-27603 78 N
-27602  1
-27601 78 N
-27600 78 N
-27599  1
```

```
10 CLS:PRINT:FORL=-27610TO-27599:PRINTTAB(10)L;
20 PRINTUSING"## ";PEEK(L);:IFPEEK(L)<32THENPRINT:GOTO40
30 PRINTCHR$(PEEK(L))
40 NEXT
```

THE E & F WORD PROCESSOR AS SOLD BY DICK SMITH ELECTRONICS WAS AND IS ONE OF THE BETTER TYPE PROGRAMS AVAILABLE FOR THE VZ. MANY VZ USERS, MYSELF INCLUDED FOUND IT ANNOYING HAVING TO SET UP THE PRINT MENU EACH TIME THE W.P. IS LOADED IN THE VZ.

AS EDITOR I USE THE W.P. A FAIR BIT AND THANKS TO DAVE BOYCE WHO SUPPLIED THE INFO ON HOW TO CHANGE THE DEFAULTS THE SOURCE OF ANNOYANCE HAS BEEN REMOVED. TO MODIFY THE W.P. PRINT MENU TO YOUR OWN DEFAULTS IS SIMPLE ENOUGH, EVEN FOR THE BEGINNER. UNFORTUNATELY THE MODS DESCRIBED ARE ONLY FOR DISK DRIVE USERS.

THE REASON IS THAT WHEN W.P. IS CLOADED FROM TAPE IT AUTORUNS AND MODS CAN'T BE CARRIED OUT. AND NOW TO THE MODS. TYPE IN AND SAVE TO DISK THE FOUR LINE MEMORY PEEK PROGRAM. IE :-

SAVE"WP-PEEK"

AT TOP OF THIS PAGE THERE ARE FOUR SCREEN DUMPS, TWO OF THE PRINT MENU AND TWO OF WP-PEEK PROGRAM IN ACTION. THE TWO LEFT ONES ARE BEFORE THE MODS WHILE THE TWO RIGHT ONES ARE AFTER THE MODS.

NEXT RESET THE VZ AND BLOAD W.P. FROM DISK AND THEN RUN"WP-PEEK" PROGRAM. YOU SHOULD SEE ON THE SCREEN A DISPLAY AS PER BOTTOM LEFT SCREEN DUMP PROVIDED YOUR W.P. HAS'NT BEEN MODIFIED PREVIOUSLY.

THE NUMBERS ON THE LEFT REPRESENT MEMORY LOCATIONS OF THE PRINT MENU DEFAULTS, NEXT THE ASCII NUMBERS FOLLOWED BY ALPHABETIC EQUIVALENTS. KNOWING THE MEMORY LOCATIONS WE CAN POKE THE NEW DEFAULTS IN, IT'S AS EASY AS THAT. AND NOW TO THE MODS AND WE'LL TAKE EACH DEFAULT IN TURN.

SCREEN OR PRINTER (S/P) ?P
POKE -27610,80 FOR PRINTER - POKE -27610,83 FOR SCREEN.

RIGHT-JUSTIFY (Y/N) ?Y
POKE -27609,89 FOR YES - POKE -27609,78 FOR NO

PAGE WIDTH (20-99) ?31
POKE -27608,N - N=20 TO 99 - YOUR CHOICE

LEFT MARGIN (0-80) ?00
POKE -27607,N - N= 0 TO 80 - YOUR CHOICE

PAGE LENGTH (10-99) ?62
POKE -27606,N - N=10 TO 99 - YOUR CHOICE

INTER-PAGE LENGTH (0-9) ?4
POKE 27605,N - N= 0 TO 9 - YOUR CHOICE

AUTO-NEXT-PAGE (Y/N) ?Y
POKE -27604,89 FOR YES - POKE -27604,78 FOR NO

PAGE NUMBERING (Y/N) ?N
POKE -27603,89 FOR YES - POKE -27603,78 FOR NO

FIRST PAGE NUMBER (1-99) ?01
POKE -27602,N - N= 1 TO 99 - YOUR CHOICE

SUPPRESS FINAL F-F (Y/N) ?N
POKE -27601,89 FOR YES - POKE -27601,78 FOR NO

DOUBLE SPACING (Y/N) ?N
POKE -27600,89 FOR YES - POKE -27600,78 FOR NO

NUMBER OF COPIES (1-9) ?1
POKE -27599,N - N= 1 TO 9 - YOUR CHOICE

WELL THAT COVERS ALL THE DEFAULTS. ONLY CHANGE THE DEFAULTS YOU REQUIRE. TYPE IN RUN AND PRESS RETURN AND YOU SHOULD GET A SCREEN DISPLAY WITH YOUR NEW DEFAULTS. DOUBLE CHECK TO MAKE SURE THEY ARE CORRECT AND IF NOT REPEAT PROCESS ON THOSE THAT ARE NOT.

BE VERY CAREFULL WHEN POKING NUMBERS AS A POKE TO THE WRONG MEMORY LOCATION CAN CORRUPT W.P. IF EVERYTHING IS OK THEN IT'S TIME TO SAVE MODIFIED W.P. TO DISK USING THE FOLLOWING FORMAT :-

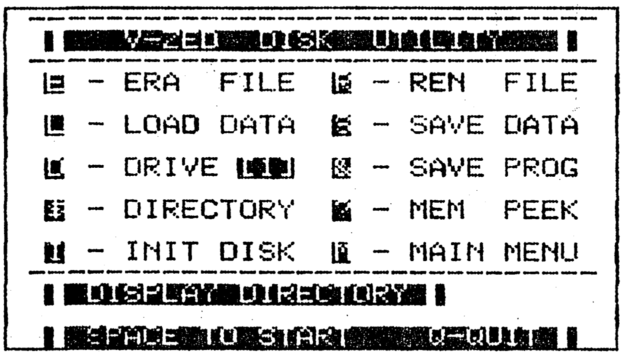
BSAVE"WORDPRO",7B80,957F

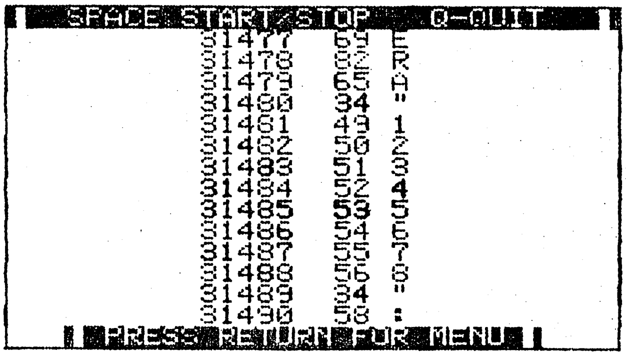
INSTEAD OF USING WORDPRO YOU CAN USE ANY FILENAME OF YOUR CHOICE. IF YOU HAVE OUR W.P. PATCH3.1 THEN THEN THE FILENAME WORDPROC MUST BE USED. ALL THAT REMAINS NOW IS TO TEST IT OUT.

RESET THE VZ AND BRUN YOUR MODIFIED W.P. AND SELECT PRINT MENU AND THE DEFAULTS SHOULD BE AS PER YOUR SPECS. EVEN THOUGH THE MODS ARE MINOR THE W.P. PRINT MENU IS MUCH EASIER TO USE.

THE WP-PEEK PROGRAM CAN BE USED TO PEEK AT OTHER MEMORY LOCATIONS AS WELL. JUST CHANGE START/END ADDRESSES IN LINE 10. OTHER INTERESTING MEMORY LOCATIONS IN W.P. ARE :-

-28838 TO -28839 *** -28838 TO -28262 *** -28255 TO -28235
-28225 TO -28176 *** -28176 TO -27630 *** -27613 TO -27599
-27472 TO -27395 *** -27330 TO -27268






```
10 GOTO46
12 ERA"12345678":RETURN
14 REN"12345678","12345678":RETURN
16 SAVE"12345678":RETURN
38 '"DO NOT ALTER LINES 10-16
40 FORPO=0TO7:POKEAD+PO,ASC(MID$(N$+"          ",PO+1,1)):NEXT
42 RETURN
44 :
46 CLS:POKE30744,96:COLOR,0:POKE30862,80:POKE30863,52
48 DR=1:DR$="1":S$=" --------------------------------"
50 DF$=" SELECT DESIRED FUNCTION  "
52 SP$="                              ":REM 30 SPACES
56 GOTO300
58 :
60 PRINT@482," SPACE TO START      Q-QUIT ";:SOUND30,1
62 A$=INKEY$:A$=INKEY$:IF A$=""THEN62ELSEX=USR(X)
64 IFA$=" "THENGOSUB75:RETURNELSEIFA$="Q"THEN300ELSE62
68 :
70 PRINT@418,SP$:RETURN
75 PRINT@480,SP$:RETURN
80 GOSUB70:PRINT@418," DISPLAY DIRECTORY  ";:GOSUB60
82 CLS:DIRA:STATUSA
84 :
86 PRINT@482," LPRINT DIRECTORY - Y/N ";:SOUND30,1
88 R$=INKEY$:R$=INKEY$:IFINKEY$=""THEN88ELSEX=USR(X)
90 IFR$="N"THEN300ELSEIFR$="Y"THEN92ELSE88
92 IF INP(0)=254 THENCLS:POKE30876,1:DIR:STATUS:GOTO0300
94 :
96 PRINT@482," PRINTER NOT OPERATIONAL ";:SOUND30,1
98 SOUND0,9;0,5:GOTO0300
98 :
100 GOSUB70:PRINT@418," ERA FILENAME   ";:SOUND30,1
102 INPUTN$:AD=31481:GOSUB40:GOSUB60:GOSUB12:GOTO82
108 :
110 GOSUB70:PRINT@418," OLD FILENAME   ";:SOUND30,1
112 INPUTN$:AD=31501:GOSUB40
114 PRINT@450," NEW FILENAME   ";:SOUND30,1
116 INPUTN$:AD=31512:GOSUB40:GOSUB60:GOSUB14:GOTO 82
118 :
120 GOSUB70:PRINT@444,"N"
122 PRINT@418," UPDATE PROGRAM  Y/N  ";:SOUND30,1:INPUTN$
124 IFN$="N"THEN UP=0 ELSEIFN$="Y"THEN UP=1
128 :
130 GOSUB70:PRINT@418," SAVE PROGRAM    ";:SOUND30,1:INPUTN$
132 SOUND30,1:IFUP=0THENGOSUB60:GOTO0140
134 GOSUB 60
136 GOSUB70:PRINT@418," ERASING PROGRAM  ";N$:SOUND30,1
138 AD=31481:GOSUB40:GOSUB12
140 GOSUB70:PRINT@418," SAVING PROGRAM  ";N$:SOUND30,1
142 AD=31533:GOSUB40:GOSUB16:GOTO 82
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190 GOSUB70:PRINT@418,"▌ INITIALIZE DISK ▌";:GOSUB 60
192 PRINT@482,"▌ PLEASE WAIT 15 SECONDS ▌";:SOUND30,1
194 INIT:GOTO 80
198 :
200 CLS:POKE30777,1:PRINT"▌ SPACE=START/STOP  Q=QUIT ▌";
210 FORL= 31477 TO 31847:PRINTTAB(9)L;PEEK(L);CHR$(PEEK(L))
220 IFINKEY$=" "THEN230ELSEIFINKEY$="Q"THEN240
230 IFINKEY$=""THEN220ELSENEXT
240 PRINT@483,"▌ PRESS RETURN FOR MENU ▌";
245 POKE30777,1:SOUND30,1
250 IFINKEY$=CHR$(13)THEN300ELSE250
295 :
300 CLS:POKE30777,1:COLOR3:PRINTS$
305 PRINT"  ▌  VZ200 DISK UTILITY  ▌ ":PRINTS$
310 PRINT"  E - ERA  FILE   R - REN  FILE":PRINT
315 PRINT"  L - LOAD DATA   S - SAVE DATA":PRINT
320 PRINT"  D - DRIVE ▄▄▄   $ - SAVE PROG":PRINT
325 PRINT"  & - DIRECTORY   ? - MEM  PEEK":PRINT
330 PRINT"  I - INIT DISK   M - MAIN MENU":PRINTS$
335 GOSUB390:PRINT@418,DF$:SOUND30,1:POKE30777,35
345 :
350 D$=INKEY$:D$=INKEY$:IF D$=""THEN350ELSEX=USR(X)
355 IFD$="E"THEN100ELSEIFD$="R"THEN110
360 IFD$="L"THEN350ELSEIFD$="S"THEN350ELSEIFD$="$"THEN80
365 IFD$="I"THEN190ELSEIFD$="M"THEN350
370 IFD$="&"THEN120ELSEIFD$="?"THEN200
375 IFD$="D"THENDR=1+ABS(DR=1):DR$=CHR$(240+DR):GOSUB390
380 GOTO350
385 :
390 PRINT@237,DR$:SOUND25,1:DRIVE DR:RETURN
395 :
```

WARNING - SAVE PROGRAM BEFORE RUNNING IT !!!

THIS DOS UTILITY FEATURES THE BASIC DISK ROUTINES WHICH COULD BE INCORPORATED IN YOUR OWN PROGRAMS AND MOST OF THE ROUTINES PRESENTED HERE WERE FEATURED IN DISKLIST IN ISSUE #15, PAGES 10-13 OF THE HUNTER VALLEY VZ JOURNAL. MAIN REASON OF UTILITY IS TO PROVIDE DISK USERS ABILITY TO USE VARIABLE FILENAMES.

THE EASIEST WAY TO DO THAT IS BY POKING THE FILENAMES INTO RESERVED LINES AT START OF PROGRAM AND FOR THAT REASON LINES AT START OF PROGRAM MUST NOT BE CHANGED BY A SINGLE CHARACTER OR SPACE AS IT WILL CORRUPT THE PROGRAM.

PROVISION HAS BEEN MADE FOR YOU TO CHANGE THEM AS YOU MAY WANT TO ADD FUNCTIONS LIKE DISK SAVE/LOAD OF DATA FILES, ETC. THE INBUILT MEM PEEK ROUTINE PROVIDES THE MEANS FOR YOU TO ALTER LINES 10-16 OR ADD MORE LINES WITH EXTRA DISK FUNCTIONS.

TWO SCREEN DUMPS ARE SHOWN, ONE IS OF THE MENU PRIOR TO SELECTING DIRECTORY WHILE THE OTHER SHOWS MEMORY PEEK ROUTINE IN ACTION. IN ALL FUNCTIONS A QUIT OPTION HAS BEEN PROVIDED.

ALL THE ROUTINES CAN BE RELOCATED TO SUIT YOUR PROGRAMS PROVIDED YOU ADJUST THE THEN, GOTO, GOSUB AND THEIR ASSOCIATED LINE NUMBERS. THE TWO ROUTINES WHICH MAKE IT POSSIBLE TO USE VARIABLE FILENAMES ARE MEM PEEK AT LINES 200-250 AND FILNAME POKE ROUTINE IN LINES 40-42. AND NOW TO THE PROGRAM ITSELF.

YOU'LL NOTE THAT LINES 12, 14, 16 AND 40-42 ARE ROUTINES. ALSO THE NUMBERS 1 TO 8 ARE BETWEEN THE QUOTES AND SIMPLY REPRESENT THE 8 FILENAME SPACES AND IT'S WHERE THE VARIABLE FILENAMES ARE POKED INTO.

IN CASE THERE ARE LESS THAN 8 CHARACTERS IN FILENAME THEN THE ROUTINE AT LINE 40 PADS IT OUT WITH SPACES TO MAKE UP THE 8 CHARACTERS. SO REGARDLESS WHAT FILENAME IS BETWEEN THE QUOTES, THE NEW FILENAME OVERWRITES IT COMPLETELY.

USING DISK UTILITY :-

ERA FILE - THIS OPTION IS USED TO ERASE ANY DISK FILE OF YOUR CHOICE. WHEN REQUESTED ENTER FILENAME TO BE ERASED. PRESS SPACE TO START, Q TO QUIT. ROUTINE AT LINE 12 IS USED.

REN FILE - THIS OPTION IS USED TO RENAME ANY DISK FILE OF YOUR CHOICE. WHEN REQUESTED ENTER OLD FILENAME AND NEW FILENAME. PRESS SPACE TO START, Q TO QUIT. ROUTINE AT LINE 14 IS USED.

LOAD DATA - THIS OPTION HAS BEEN LEFT UP TO YOU.

SAVE DATA - THIS OPTION HAS BEEN LEFT UP TO YOU.

DRIVE 1-2 - THIS OPTION IS USED TO SELECT DRIVE 1 OR 2. PRESSING 'D' WILL TOGGLE BETWEEN DRIVE 1 AND 2 WITH MENU DISPLAY BEING UPDATED AS WELL.

SAVE PROG - THIS OPTION IS USED TO SAVE/UPDATE THIS PROGRAM. THE ROUTINE FOR SAVING IS IN LINE 16 AND IN UPDATING ERASE ROUTINE IS USED BEFORE SAVE.

DIRECTORY - THIS OPTION IS USED TO DISPLAY DIRECTORY AND STATUS. LINE 82 CONTAINS THE COMMANDS DIRA AND STATUSA AND ARE FUNCTIONS AVAILABLE IN D.MITCHELL'S EXT.DOS. ADJUST LINE 82 ACCORDING TO YOUR DOS DISK COMMANDS.

MEM PEEK - THIS OPTION IS USED TO ALTER LINES 10 TO 16 AND OR ADD EXTRA LINES . USE LINE NUMBERS BETWEEN 18 AND 36 SO THEY FOLLOW LINE 16. TO USE ROUTINE WE'LL USE ERASE ROUTINE AS EXAMPLE.

IF YOU STUDY THE RIGHT SCREEN DUMP ON PAGE 10 YOU'LL SEE THE MEMORY LOCATIONS OF LINE 12 STARTING WITH THE WORD ERA AND ENDING WITH A COLON. THE MEMORY LOCATION WE'RE AFTER IS THE ONE FOLLOWING OPENING QUOTE WHICH IS 31481.

IF WE LOOK NOW AT LINE 102 WE'LL SEE THAT AD=31481 WHICH IS THE START ADDRESS OF FIRST CHARACTER OF FILENAME. AFTER START ADDRESS IS DECLARED GOSUB40 POKES FILENAME INTO LINE 12. GOSUB 60 IS THE SPACE TO START 'Q' TO QUIT ROUTINE. GOSUB 12 DOES THE ACTUAL ERASING OF FILENAME AND THEN DISPLAYS DIRECTORY VIA ROUTINE IN LINE 82.

IF YOU ALTER OR ADD MORE LINES DO NOT FORGET TO UPDATE THE MEMORY ADDRESSES IN LINES CONTAINING AD=XXXXX. ALSO THE END ADDRESS IN LINE 210 WILL HAVE TO BE CHANGED AS IT ONLY DISPLAYS MEMORY CONTENTS UP TO LINE 16.

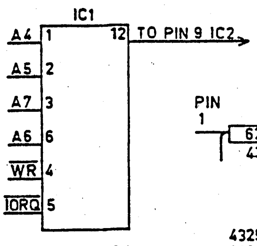
INIT DISK - THIS OPTION IS USED TO INITIALISE YOUR DISKS AND IS PROVIDED WITH A QUIT OPTION.

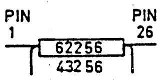
MAIN MENU - THIS OPTION IS USED TO RETURN TO OTHER MENU/S.

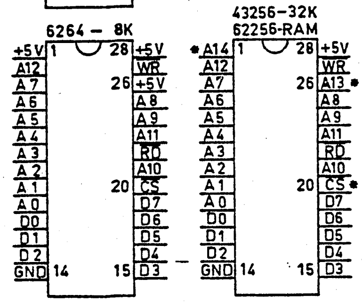
```
10 'PROGRAM TO CALCULATE MONTHLY MORTAGE REPAYMENTS
20 'INTEREST IS CALCULATED ON OUTSTANDING BALANCE EACH MONTH
30 :
40 MI$="--------------------------------":F$="#######.##"
50 :
60 CLS:PRINT"M O R T A G E  R E P A Y M E N T";MI$;
70 PRINT"       AMOUNT TO BORROW"
80 INPUT" MORTAGE AMOUNT  . . . ";MA
90 INPUT" INTEREST RATE . . . . ";IR
100 INPUT" LOAN LENGTH IN YEARS  ";Y:PRINTMI$;
110 :
120 I=(IR/100)/12           :'[I]   *** MONTHLY INTEREST RATE ***
130 M=I/((1+I)^(Y*12)-1)+I  :'[M]   *** MULTIPLICATION FACTOR ***
140 MP=M*MA                 :'[MP]    *** MONTHLY PAYMENT ***
150 IA=(MP*(Y*12))-MA       :'[IA]  *** TOTAL INTEREST ADDED  ***
160 TP=MA+IA                :'[TP]  ** MORT. AMOUNT + INTEREST **
170 :
180 MA$=" MORTAGE AMOUNT "
190 IR$=" INTEREST RATE  "
200 MP$=" MONTHLY PAYMENT"
210 IA$=" INTEREST ADDED "
220 Y$= " NUMBER OF YEARS"
230 TP$=" TOTAL PAID     "
240 :
250 PRINT MA$;"    $";USINGF$;MA
260 PRINT IR$;"    %";USINGF$;IR
270 PRINT MP$;"    $";USINGF$;MP
280 PRINT  Y$;"     ";USINGF$;Y
290 PRINT IA$;"    $";USINGF$;IA
300 PRINT TP$;"    $";USINGF$;TP
310 :
320 PRINTMI$;
330 PRINT@478,"Y";:PRINT@448," LPRINT  CALCULATION  (Y/N) ";
340 SOUND30,1:INPUTK$
350 IF K$ ="Y"THEN370ELSE490
360 :
370 LPRINTTAB(8)"MORTAGE     INTEREST    MONTHLY      ";
380 LPRINT"NUMBER OF   INTEREST     TOTAL TO"
390 LPRINTTAB(8)"AMOUNT      RATE        PAYMENT      ";
400 LPRINT"YEARS       ADDED        PAY"
410 LPRINTTAB(08);"$";MA;
420 LPRINTTAB(19);IR;"%";
430 LPRINTTAB(32);"$";MP;
440 LPRINTTAB(43);Y;
450 LPRINTTAB(56);"$";IA;
460 LPRINTTAB(68);"  $";TP
470 LPRINT
480 :
490 PRINT@478,"Y":PRINT@448," ANOTHER CALCULATION  (Y/N) ";
500 SOUND30,1:INPUTK$
510 IF K$ ="Y"THEN60ELSE530
520 :
530 CLS:END
```

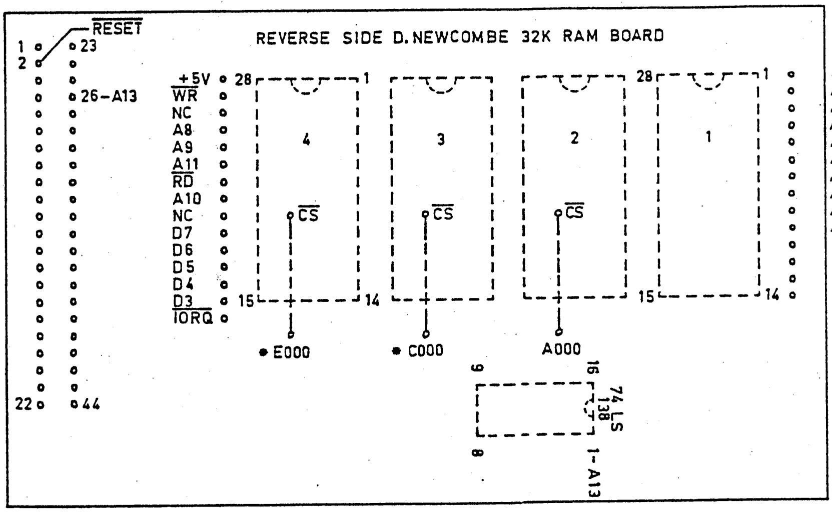
MORTAGE AMOUNT	INTEREST RATE	MONTHLY PAYMENT	NUMBER OF YEARS	INTEREST ADDED	TOTAL TO PAY
$ 30000	15.5 %	$ 430.199	15	$ 47435.8	$ 77435.8

MORTAGE AMOUNT	INTEREST RATE	MONTHLY PAYMENT	NUMBER OF YEARS	INTEREST ADDED	TOTAL TO PAY
$ 30000	15.5 %	$ 406.165	20	$ 67479.6	$ 97479.6









MY APOLOGIES TO OUR READERS FOR TAKING SO LONG WITH PART 2 OF THIS PROJECT. THE ORIGINAL IDEA WAS TO PRODUCE A PRINTED CIRCUIT BOARD AND OFFER IT FOR SALE TO INTERESTED PERSONS. UNFORTUANATELY THE COST OF PRODUCING SUCH A BOARD IS WELL OVER $200.00 AND OUT OF MY REACH.

THE ALTERNATIVE IS TO USE EXISTING BOARDS WHICH CAN BE USED WITH SOME MODIFICATIONS. THE TWO BOARDS ARE :-

1) - ETI 687 SUPER II 34 K RAM BOARD.
2) - DAVID NEWCOMBE 32K RAM BOARD - SEE LAST ISSUE FOR DETAILS.

IN THIS ARTICLE I'LL BE USING DAVID'S BOARD AS AN EXAMPLE AND MOST OF THE IDEAS SHOULD APPLY TO THE ETI 687 BOARD AS WELL.

CORRECTION - IN PART 1 THE CIRCUIT OF IC 1 IS INCORRECT. THE CORRECT CIRCUIT APPEARS AT TOP LEFT OF THIS PAGE.

WHEN I WAS DESIGNING 128K S/WAYS RAM I ALSO DESIGNED CIRCUITS FOR 32K VIDEO RAM, 64K BASIC ROM, 128K DOS ROM, 128K RAM DISK AND 64K FOR 6000H-67FFH RANGE ALL USING S/WAYS OR BANK SWITCHING TECHNIQUES. INADVERTANTLY I USED THE WRONG CIRCUIT.

DAVIDS RAM BOARD IS DESIGNED TO HOLD 4 X 8K RAM CHIPS IF USED WITH VZ 200 OR 2 X 8K AND 1 X 2K RAM CHIPS PLUS A 74LS00 IF USED WITH VZ 300. TO USE WITH VZ 300 ONLY 98K (3 X 32K + 1 X 2K) CAN BE PLACED ON BOARD AND WITH VZ 200 80K (2 X 8K + 2 X 32K). THE MISSING 32K CHIPS COULD BE PIGGYBACKED OR PUT ON DAVIDS 64K ROM BOARD WHICH CAN HOLD UP TO 4 X 16K EPROMS.

THERE ARE ONLY 2 DIFFERENCES BETWEEN 8K AND 32K RAM CHIPS AND ARE MARKED WITH AN ASTERICK ON THE PINOUTS ABOVE. THEY ARE :-

PIN 1 8K +5V - 32K A14
PIN 26 8K +5V - 32K A13

WHAT IT MEANS IS THAT WE CAN PUT 32K RAM CHIPS IN PLACE OF 8K RAM CHIPS ON THE BOARD. PINS 1 AND 26 MUST BE BENT UP 90 DEG. OR MORE PRIOR TO INSERTING INTO SOCKETS.

ONE HELPFULL FEATURE OF DAVID'S BOARD IS IT'S ABILITY TO TAKE A PIGGYBACK ROM BOARD WITH ALL THE REQUIRED SIGNAL LINES AVAILABLE BAR FOUR, RESET , A13, C000 AND E000. IC'S 1 TO 4 FROM 128K RAM CIRCUIT COULD BE PUT ON APIECE OF VEROBOARD AND UNIT PLUGGED IN WHERE THE ROM BOARD IS SUPPOSED TO GO.

THE DRAWING DEPICTING REVERSE SIDE OF BOARD SHOWS WHERE ALL THE REQUIRED SIGNAL LINES ARE. A13 CAN BE HAD FROM TWO LOCATIONS AND BOTH ARE MARKED. RESET IS AVAILABLE ONLY FROM EDGE CONNECTOR.

TWO MORE SIGNALS ARE NEEDED AND THEY ARE C000 AND E000 AND ARE MARKED WITH AN ASTERICK. THEY COME FROM ON BOARD DECODER WHICH DECODES THE FULL 64K IN 8K BLOCKS. THE DIODE AND GATE COMBINES THE TWO 8K BLOCK SIGNALS INTO ONE 16K BLOCK IN THE NEEDED RANGE OFF C000-FFFF WHICH ACTS AS AN ENABLE FOR IC 3.

ONCE YOU HAVE ASSEMBLED THE PLUG IN BOARD WE CAN PROCEED TOWARDS ASSEMBLY. IF USING WITH VZ 300 THEN THE 74LS00 DECODER COULD BE MOUNTED ON PLUG IN BOARD BY MAKING IT LONGER AND LETTING IT OVERHANG AT THE EDGE CONNECTOR END WHICH WOULD MAKE ROOM FOR THIRD 32K RAM CHIP ON RAM BOARD.

THE 32K RAM CHIPS ARE PLACED IN POSITIONS 4, 3 AND 2. THE CS (CHIP SELECT) SIGNALS COME FROM IC 4A TO 4B, PINS 3, 6 AND 11 AND GO TO CS POINTS MARKED ON 32K RAM BOARD. SOLDER A PIECE OF COVERED WIRE TO ONE OF A13 ADDRESS POINTS AND CONNECT OTHER END TO PIN 26 OF ALL 32K RAM CHIPS.

DO THE SAME WITH ADDRESS A14 DERIVED FROM PIN 10 OF IC2 AND SOLDER TO PIN 1 OF ALL 32K RAM CHIPS. THE 3 LEDS CAN BE INSTALLED NOW AND CAN BE REMOVED LATER IF DESIRED. THEY ARE HANDY IN TESTING CIRCUIT OUT. THE TRUTH TABLE FOR IC 3 CAN BE USED WITH THE LEDS TO TELL YOU WHICH BANK IS ACTIVATED.

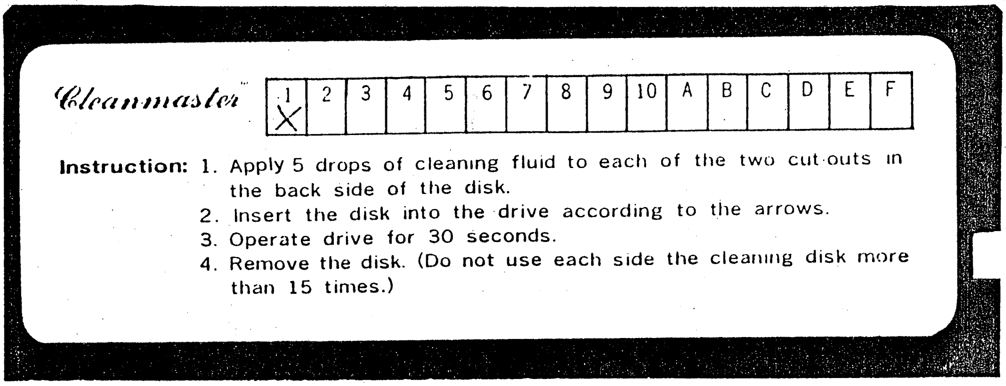
PRESUMING ALL BUILT AND READY TO GO HOOK UP TO THE VZ LEAVING TOP OF CASE OFF POWER UP AND IF NO PUFF OF SMOKE PROCEED WITH TESTING UNIT. IF LEDS ARE CONNECTED THE LED CONNECTED TO D0, PIN 7 OF IC 2 SHOULD BE ON. USING LOGIC PROBE WE'LL TEST IC 3 OUT.

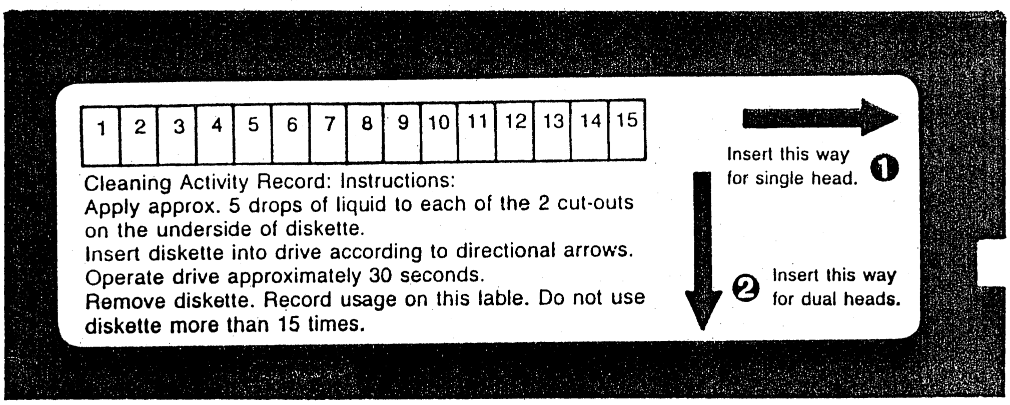
PIN 15 OF IC 3 SHOULD BE LO AND ALL OTHER O/P'S SHOULD BE HI, IF NOT THEN THERE'S AN ERROR IN ASSEMBLY. RESET VZ AND REPEAT AND IF OK PROCEED BY TESTING OTHER O/P'S ON IC 3 :-

OUT112,1 AND PIN 14 SHOULD BE LO, OTHERS HI - (BANK 1)
OUT112,2 AND PIN 13 SHOULD BE LO, OTHERS HI - (BANK 2)
OUT112,3 AND PIN 12 SHOULD BE LO, OTHERS HI - (BANK 3)
OUT112,4 AND PIN 11 SHOULD BE LO, OTHERS HI - (BANK 4)
OUT112,5 AND PIN 10 SHOULD BE LO, OTHERS HI - (BANK 5)
OUT112,6 AND PIN 9 SHOULD BE LO, OTHERS HI - (BANK 6)
OUT112,7 AND PIN 7 SHOULD BE LO, OTHERS HI - (BANK 7)
OUT112,0 AND PIN 15 SHOULD BE LO, OTHERS HI - (BANK 0)

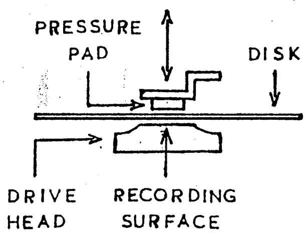
IF EVERYTHING CHECKS OUT THEN IT'S TIME TO PUT IT TO USE AND WHAT IT'S USED FOR IS UP TO YOU. YOU COULD TRY WRITING A NUMBER IN EACH BANK CORRESPONDING TO BANK AS A FINAL TEST.

THE 128K S/WAYS RAM CAN BE EXPANDED TO 256K BY REPLACING IC 3 WITH A 74LS154, AN 1 OF 16 DECODER WHICH HAS 16 O/P'S. ANOTHER QUAD AND GATE WOULD HAVE TO BE USED AND 4 EXTRA 32K RAM CHIPS.











SINCE MY MISHAP WITH THE CLEANMASTER HEAD CLEANING DISK EARLIER IN THE YEAR I'M PLEASED TO ANOUNCE THAT AFTER BRINGING IT TO THE ATTENTION OF D.SMITH THEY HAVE RECTIFIED THE PROBLEM BY PLACING A LABEL ON THE TOP CUTOUT WITH INSTRUCTIONS TO REMOVE FOR DUAL HEAD DRIVES. ALSO MY DAMAGED DRIVE WAS FIXED AT NO CHARGE.

NOT LONG AGO I'VE COME ACROSS A SIMILAR H.C/DISK WHICH IS CORRECTLY LABELLED, REFER TO THE TWO LABELS FOR COMPARISON. FOR THOSE PERSONS NOT AWARE THE VZ AND C64 WRITE TO THE BOTTOM OF DISK, NOT THE TOP. THE REASON FOR THE CUTOUT AT TOP OF DISK IS SO THE PRESSURE PAD CAN REST ON DISK SURFACE BRINGING IT INTO CONSTANT CONTACT WITH RECORDING HEAD WHICH IS AT BOTTOM.

DUAL HEAD DRIVES HAVE 2'ND HEAD IN PLACE OF PRESSURE PAD SO THEY CAN WRITE TO BOTH SIDES OF DISK WITHOUT FLIPPING OVER.

BOTH C/DISKS MUST BE INSERTED INTO DRIVE AS DEPICTED ON BOTTOM LEFT AND RIGHT. IF YOU HAVE DIFFERENT H.C/DISK OR ABOVE MAKE SURE THAT AT NO TIME PRESSURE PAD RESTS ON ANY PART OF HEAD CLEANING SURFACE AS DAMAGE MAY RESULT.

```
10 '"DISK LABELS VERS 1 USING VZ 300/200 AND PRINTER PLOTTER
20 :
50 CLS:SOUND30,2:PRINT@42,"DISK LABELS":PRINT
60 PRINT"  ENTER NAME OF DISK"
70 INPUT"-:E.G. UTILITY /GAMES /PRINTER  ETC. 8 CHAR'S MAX";IN$
80 INPUT" DISK NO# <PRESS RETURN TO PASS> ";DN$
85 IF DN$="" THEN DN$=".."
90 PRINT:PRINT" DISK NAME IS-:";IN$;" ";DN$
95 INPUT" IS THIS CORRECT <Y/N> ";YN$
96 IF YN$<>"N" THEN 100 ELSE RUN
99 END
100 LPRINTCHR$(18):LPRINT"I":LPRINT"C0,S1"
110 ' BORDER
120 LPRINT"J360,0" 'RIGHT
130 LPRINT"J0,-600" 'DOWN
140 LPRINT"J-360,0" 'LEFT
150 LPRINT"J0,600" 'UP
160 LPRINT"M300,0":LPRINT"I"
170 LPRINT"J0,-600" 'DOWN
180 LPRINT"J-30,0,0,600,-30,0,0,-600,-30,0,0,600"
190 LPRINT"J-30,0,0,-600,-30,0,0,600,-30,0,0,-600"
200 LPRINT"J-30,0,0,600,-30,0,0,-600,-30,0,0,600"
210 LPRINT"R-30,0,0,-300":LPRINT"I"
220 LPRINT"J300,0"
230 LPRINT"R0,300,10,0":LPRINT"I"
240 LPRINT"Q1,S3":LPRINT"P  VZ ";IN$;" DISK NO#.";DN$
250 LPRINT"H"
260 LPRINT"R-33,0":LPRINT"S1":LPRINT"R0,-100"
270 LPRINT"PSIDE A":LPRINT"R0,-240":LPRINT"PSIDE B"
280 LPRINT"R0,-250"
300 LPRINT"C0,S1":LPRINTCHR$(17):END
```

```
10 '"DISK LABELS VERS 2 USING VZ 300/200 AND PRINTER PLOTTER
20 :
50 CLS:SOUND30,2:PRINT@42,"DISK LABELS II":PRINT
60 PRINT"  ENTER NAME / TITLE OF DISK"
70 INPUT"-:E.G. UTILITY /GAMES /PRINTER  ETC. 8 CHAR'S MAX";IN$
75 IF LEN(IN$)>8 THEN PRINT"SORRY- TO LONG, TRY AGAIN":GOTO 70
78 IF IN$="" THEN IN$="        "
80 INPUT" DISK NO# <PRESS RETURN TO PASS> ";DN$
85 IF DN$="" THEN DN$=".."
90 PRINT:PRINT" DISK NAME IS-:";IN$;" ";DN$
95 INPUT" IS THIS CORRECT <Y/N> ";YN$
96 IF YN$<>"N" THEN 100 ELSE RUN
99 END
100 LPRINTCHR$(18):LPRINT"I":LPRINT"C0,S1"
110 ' BORDER
120 LPRINT"J360,0" 'RIGHT
130 LPRINT"J0,-600" 'DOWN
140 LPRINT"J-360,0" 'LEFT
150 LPRINT"J0,600" 'UP
160 LPRINT"M300,0":LPRINT"I"
170 LPRINT"J0,-600" 'DOWN
180 LPRINT"J-30,0,0,600,-30,0,0,-600,-30,0,0,600"
190 LPRINT"J-30,0,0,-600,-30,0,0,600,-30,0,0,-600"
200 LPRINT"J-30,0,0,600,-30,0,0,-600,-30,0,0,600"
210 LPRINT"R-30,0,0,-200":LPRINT"I":LPRINT"J300,0"
220 LPRINT"R0,-200":LPRINT"J-300,0"
230 LPRINT"R0,400,310,0":LPRINT"I"
240 LPRINT"Q1,S3":LPRINT"P  VZ ";IN$;" DISK NO#.";DN$
280 LPRINT"R-310,-250"
300 LPRINT"Q0,C0,S1":LPRINTCHR$(17):END
310 ' LINE 78 COULD READ >>       > IF IN$="" THEN IN$="......."
```

```
10 '"[illegible]
20 :
50 CLS:SOUND30,2:PRINT@40,"DISK LABELS III":PRINT
60 PRINT"  ENTER NAME / TITLE OF DISK"
70 INPUT"-:E.G. UTILITY /GAMES /PRINTER  ETC. 9 CHAR'S MAX";IN$
75 IF LEN(IN$)>9 THEN PRINT"SORRY- TO LONG, TRY AGAIN":GOTO 70
78 IF IN$="" THEN IN$="         "
80 INPUT" DISK NO# <PRESS RETURN TO PASS> ";DN$
85 IF DN$="" THEN DN$=".."
90 PRINT:PRINT" DISK NAME IS-:";IN$;" ";DN$
95 INPUT" IS THIS CORRECT <Y/N> ";YN$
96 IF YN$<>"N" THEN 100 ELSE RUN
99 END
100 LPRINTCHR$(18):LPRINT"I":LPRINT"CO,S1"
110 ' BORDER
120 LPRINT"J360,0" 'RIGHT
130 LPRINT"J0,-600" 'DOWN
140 LPRINT"J-360,0" 'LEFT
150 LPRINT"J0,600" 'UP
160 LPRINT"R0,-60":LPRINT"J360,0,0,-60,-360,0"
170 ' LINES ACROSS LOOP
180 FOR LF=1 TO 7
190 LPRINT"J0,-30,360,0,0,-30,-360,0"
200 NEXT LF
210 LPRINT"J0,-30,360,0":LPRINT"R-360,0,0,520"
230 LPRINT"I"
240 LPRINT"S3":LPRINT"P  VZ ";IN$
250 LPRINT"H":LPRINT"R0,-60":LPRINT"I"
260 LPRINT"P  DISK NO#.";DN$
280 LPRINT"H":LPRINT"R0,-580"
300 LPRINT"CO,S1":LPRINTCHR$(17):END
310 ' LINE 78 COULD READ >>      > IF IN$="" THEN IN$="......."
```

```
10 '"[illegible]
20 :
50 CLS:SOUND30,2:PRINT@40,"DISK LABELS IV":PRINT
60 PRINT"  ENTER NAME / TITLE OF DISK"
70 INPUT"-:E.G. UTILITY /GAMES /PRINTER  ETC. 8 CHAR'S MAX";IN$
75 IF LEN(IN$)>8 THEN PRINT"SORRY- TO LONG, TRY AGAIN":GOTO 70
78 IF IN$="" THEN IN$="        "
80 INPUT" DISK NO# <PRESS RETURN TO PASS> ";DN$
85 IF DN$="" THEN DN$=".."
90 PRINT:PRINT" DISK NAME IS-:";IN$;" ";DN$
95 INPUT" IS THIS CORRECT <Y/N> ";YN$
96 IF YN$<>"N" THEN 100 ELSE RUN
99 END
100 LPRINTCHR$(18):LPRINT"I":LPRINT"CO,S1"
110 ' BORDER
120 LPRINT"J360,0" 'RIGHT
130 LPRINT"J0,-600" 'DOWN
140 LPRINT"J-360,0" 'LEFT
150 LPRINT"J0,600" 'UP
160 LPRINT"M300,0":LPRINT"I"
170 LPRINT"J0,-600" 'DOWN
180 LPRINT"R0,30" ' UP
190 FOR LF=1 TO 9
200 LPRINT"J-300,0,0,30,300,0,0,30"
210 NEXT LF
220 LPRINT"J-300,0"
230 LPRINT"R300,0,0,30,10,0":LPRINT"I"
240 LPRINT"Q1,S3":LPRINT"P  VZ ";IN$;" DISK NO#.";DN$
280 LPRINT"R-310,-200"
300 LPRINT"Q0,CO,S1":LPRINTCHR$(17):LPRINT:END
310 ' LINE 78 COULD READ >>      > IF IN$="" THEN IN$="......."
```

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VZ SCREEN ED IS A NEW DRAWING PROGRAM FOR HI-RES SCREENS WITH MANY POWERFUL OPTIONS. BOTH TAPE AND DISK USERS ARE CATERED FOR.

SEND YOUR CHEQUE OR MONEY ORDER TO :-
MATTHEW TAYLOR SOFTWARE -- OR PHONE (049) 75 2350
38 FISHING POINT ROAD RATHMINES NSW 2283 AUSTRALIA

YOU CAN SEE MATTHEW AT CLUB MEETINGS FOR A DEMONSTRATION OR PURCHASE OF SCREEN ED.

HINTS & TIPS . . . .

I DON'T AS A RULE SPEND MUCH TIME PROGRAMMING AND RECENTLY SPENT COUPLE DAYS AT IT. THIS PARTICULAR PROGRAM HAD ME STYMED FOR MONTHS AND THE ANSWER WAS STARING ME IN THE FACE AND I COULD'NT SEE IT, IE :-

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30 DIM AR(12,18):DIM A(18)
40 CLEAR 2000:GOSUB 2000
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THE DEFAULT FOR ARRAYS IS 0-10. THE CLEAR COMMAND IN LINE 40 REDUCED THE ARRAYS IN LINE 30 TO THE DEFAULT VALUE. THE CLEAR COMMAND MUST BE USED BEFORE DIMENSIONING.

E & F WORD PROCESSOR PATCH 3.3

THIS LATEST PATCH WRITTEN BY DAVE MITCHELL WILL CONVERT YOUR E & F TAPE WORD PROCESSOR FOR FULL DISK USE WHILE RETAINING ALL TAPE FUNCTIONS. BELOW ARE THE DISK COMMANDS & ADDED FUNCTIONS :-

LOAD, SAVE, ERASE, RENAME, DIRECTORY, INITIALIZE, UPDATE, DRIVE 1 & 2, SHIFTLOCK & IMBEDDED PRINTER CONTROL CODES

PATCH 3.3 HAS PROVISION FOR IMBEDDING PRINTER CONTROL CODES IN TEXT AND FAST SAVING AND LOADING OF TEXT DATA TO AND FROM DISK USING BLOCK SAVE/LOAD TECHNIQUES.

MINIMUM MEMORY REQUIREMENTS :-
VZ300 + 16K RAM PACK OR VZ200 + 18K (16K RAM PACK + 2K)

**PATCH 3.3 IS COPYRIGHT TO AND ONLY AVAILABLE FROM :-
HUNTER VALLEY VZ USERS' GROUP P.O.BOX 161 JESMOND 2299
N.S.W. AUSTRALIA - Phone (049) 51 2756**

PRICE - AUS/NZ AU$20.00 - UPDATE - AUS-$10.00 - NZ-AU$11.00.
UPDATING AVAILABLE ONLY TO PREVIOUS PURCHASERS OF OUR PATCHES.

FOR MORE INFORMATION WRITE TO H.V.VZ.U.G. ENCLOSING A SSAE.

FOR PRIVATE SALE

EXTENDED DOS V1.3 -$15.00

THE PREVIOUS VERSION HAS BEEN UPDATED WITH EXTRA COMMANDS ADDED.

OLD COMMANDS - MERGE, DIRA, LDIRA, DIRB, LDIRB, OLD, OLD., DEC, HEX, STATUSA AND LSTATUSA. STATUSA AND LSTATUSA ALSO WORKS WITH VERSION 1.0 DOS.

NEW COMMANDS :-
MENU - LOADS AND RUNS BINARY OR TEXT MENU PROGRAM FROM DISK.
CODE - SIMPLIFIES USING PRINTER CONTROL CODES DIRECTLY OR FROM WITHIN A PROGRAM.
LTAB - IS FOR SETTING OF LEFT MARGIN.
MOVE - MOVES BASIC FILE FROM DISK TO CHOSEN MEMORY ADDRESS.
UPD - ERASES OLD FILE AND SAVES WITH SAME FILE NAME.

MENU/FILE COPIER/DISK ORGANIZER - $15.00

THIS UTILITY WILL READ YOUR DISK DIRECTORY AND PRESENT YOU WITH SEVERAL OPTIONS. USING THE CURSOR YOU CAN RUN/BRUN ANY PROGRAM OR SELECT FILE COPY, REN, ERASE, DRIVE 1 OR 2, ETC. BESIDES COPYING TEXT AND BINARY FILES ALL OTHER FILES CAN BE COPIED AS WELL EXEPT FOR DATA FILES.

**FOR PURCHASE OR INFO CONTACT - DAVE MITCHELL - (079) 27 8519
24 ELPHINSTONE St. NORTH ROCKHAMPTON QUEENSLAND 4701**

FOR INFORMATION OR DEMONSTRATION IN NEWCASTLE AREA CONTACT :-
JOE LEON - (049) 51 2756 - 22 DRURY ST. WALLSEND NSW 2287